Buffaloes in the same district, whose colour is darkish rufous, with the lower portions of the legs rather lighter than the body.

Although I am fully convinced of the distinctness of the small Yala race, I do not propose to give it a name until a specimen of the head of at least one of the sexes is available for the British Museum. A fuller account will be found in the 'Field,' vol. exv. p. 1112, 1910.

4. On a new Antelope and on the Spanish Chamois. By Prof. A. Cabrera, C.M.Z.S.

[Received May 10, 1910.]

(Text-figure 149.)

Among a great number of hunting-trophies obtained last winter by the Spanish sportsman, Mr. Ricardo de la Huerta, during an expedition in British East Africa, there are two Antelope heads which seem to represent a new form of Damaliscus. They belong, indeed, to animals similar in size and colour to D. jimela, but with the middle part of the face not black, but pale whitish buff. That they are not individual aberrations is demonstrated by the fact that Mr. de la Huerta has met with two herds entirely composed of pale blazed Topis—one on the Uasingishu plateau and another near the Turkwell River. According to the natives, these antelopes were also seen by the Roosevelt party, but no specimens were obtained.

Without entering now into the question whether it is a true species or only a local race of *Damaliscus corrigum*, I think this form with whitish forehead needs a name, and I propose to call it

Damaliscus phalius*.

I take this opportunity to describe and name also the Chamois from the Cantabrian Mountains, N. Spain, which is a very different form from the Pyrenean one (*Rupicapra rupicapra pyrenaica* Bonap.), smaller in size and redder in colour.

Following are the brief descriptions of these two new animals.

Damaliscus phalius, sp. n.

Similar to *D. jimela* in size and in the colour of the body and limbs, but with a pale whitish-buff blaze on the face, instead of the black one common to the other forms of the corrigum group. In old males, according to Mr. de la Huerta, the blaze becomes pure white and almost as well defined as in *D. albifrons* and *D. pygarqus*.

Hab. The north-western part of British East Africa, east of

Mount Elgon.

^{*} Phalios was, according to Dr. Ridgeway, the Greek name for a dark-coloured horse with a white blaze from the top of the head down to the nose.

The type is the specimen from Uasingishu in the collection of Mr. de la Huerta (text-fig. 149). It is an adult, but not old, male, with horns 432 mm. in length along the front curve. The Turkwell River specimen is a female.

Text-fig. 149.



Whitish-blazed Topi (Damaliscus phalius) from the Uasingishu plateau. Type,

Rupicapra rupicapra parva, subsp. n.

Smaller than all the other forms of the species. General colour brownish red, darker on the limbs, becoming dark brown on the forearms, above the "knees," and on the inner part of the hind limbs. Sides of the head dirty greyish brown, leaving in the middle of the face a broad space of yellowish buff. The throat and under jaw are not whitish, as in R. r. pyrenaica, but only a little paler than the body-colour.

Hab. Cantabrian Mountains, N. Spain.

The type is a female from Picos de Europa, Santander province, in the Madrid Museum of Natural History. She is 570 mm. in height to the shoulder, with horns 146 mm. in length on the front curve. The horns of a male skull in the same collection are stouter, but not longer. A female from the Pyrenees, also in the Madrid Museum, is 690 mm. in height to the shoulder, and has horns 232 mm. in length.

5. The Changes of Plumage in the Red Grouse (Lagopus scoticus Lath.) in Health and in Disease. By Edward A. Wilson, M.B., F.Z.S., Field-Observer to the Grouse Disease Inquiry.*

[Received June 14, 1910.]

(Plates LXXVIII.-CI.† & Text-figure 150.)

PART I.

Plumage Changes in the Cock Grouse.

When a large number of skins of the cock Grouse are arranged together, side by side, according to the month of the year in which the birds were killed, it will be found that, even taking into account the differences of well-marked local variations in plumage, the series can readily be divided into two very distinct sets.

There is first a very marked uniformity in the plumage of the cock birds killed from the middle of November to the end of June; and likewise amongst those killed from the end of June to the middle of November.

These two periods, November to June and June to November, mark the two seasonal changes of plumage in the cock Grouse.

The first is a plumage worn throughout the winter, as well as during the courting- and breeding-season of the spring.

The second is a plumage worn throughout the summer and autumn.

It is necessary to lay stress upon this general broad division of the cock Grouse's plumage, and if a large number of skins can be arranged as suggested, the exact time at which the Grouse has definitely changed from the one plumage to the other cannot possibly be overlooked. The birds obtained at the end of May are definitely in the darker and redder winter-plumage, and those procured at the end of June are definitely in the paler and more buff-coloured summer-plumage; those killed at the beginning of October are still partly in the paler summer-plumage, and by the end of November all are in the darker winter-plumage.

It must, however, be added, that there is hardly a month in the whole year, or a Grouse-skin in a collection of many hundreds covering every month of the year, in which one plumage only can be found unmixed with the other. This fact accounts largely for the misunderstanding which at one time existed, but which has now, we hope, been satisfactorily settled, in respect of the whole

+ For explanation of the Plates see p. 1032.

^{*} Owing to Dr. Wilson having left London on the Antarctic Expedition before this Memoir was set up in type, he was unable to revise the proofs, but left full power to the Editor and Mr. W. R. Ogilvic-Grant, who have made certain modifications in the text.



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PAIR OF RED GROUSE IN SUMMER WITH YOUNG CHICKS.





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MALE GROUSE, BLACK TYPE, IN FULL WINTER-PLUMAGE.





MALE GROUSE, RED TYPE, IN FULL WINTER-PLUMAGE.





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MALE GROUSE, RED TYPE, IN FULL WINTER-PLUMAGE WITH A FEW BLACK-CENTERED FEATHERS OF THE PREVIOUS AUTUMN-PLUMAGE.





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MALE GROUSE SHOWING MARKED BEGINNING OF THE AUTUMN-PLUMAGE ON HEAD AND NECK.





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MALE GROUSE CHANGING FROM WINTER- TO AUTUMN-PLUMAGE.





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FEMALE GROUSE, BLACK TYPE, IN AUTUMN-PLUMAGE.





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FEMALE GROUSE, RED TYPE, CHANGING FROM WINTER- TO SUMMER-PLUMAGE.





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FEMALE GROUSE SHOWING BARE PATCH OF SKIN AND DOUBLE LINE OF BARRED FEATHERS ON ABDOMEN.





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FEMALE GROUSE, RED TYPE; FEATHERS FROM FLANKS.





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FEMALE GROUSE, RED TYPE; WORN UPPER TAIL-COVERTS.

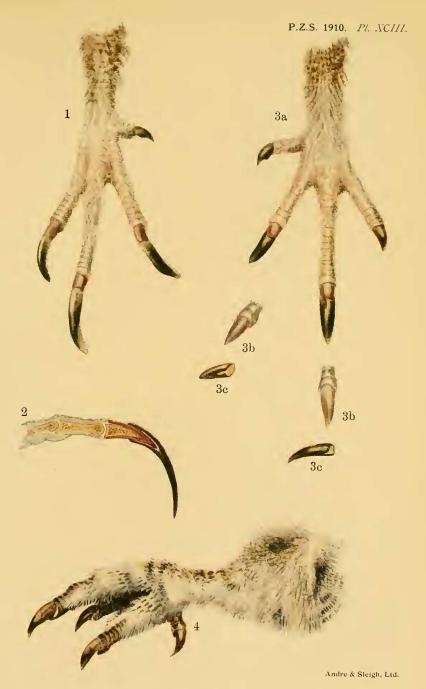




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FEET OF RED GROUSE: (1) NEW WINTER-FEATHERS AND NAILS; (2) FULL WINTER-PLUMAGE.





FEET OF GROUSE SHOWING STAGES IN MOULTING OF NAILS.







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HEADS OF GROUSE: (1) FEMALE; (2) MALE.